



UNITED STATES PATENT AND TRADEMARK OFFICE

CU
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,341	11/26/2003	Hongjie Cao	3060.PC	8212

7590 04/10/2007
Karen G. Kaiser
NATIONAL STARCH AND CHEMICAL COMPANY
10 Finderne Avenue
Bridgewater, NJ 08807-0500

EXAMINER

CHANNAVAJJALA, LAKSHMI SARADA

ART UNIT	PAPER NUMBER
----------	--------------

1615

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/723,341

Applicant(s)

CAO ET AL.

Examiner

Lakshmi S. Channavajjala

Art Unit

1615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/26/03:4/8/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

Art Unit: 1615

DETAILED ACTION

Receipt of IDS dated 11-26-0 and 4-8-05 is acknowledged.

Claims 1-26 are pending.

Specification

The use of the trademark Dermacryl has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner, which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

Claims 2-9, 11-17 and 19-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Instant claims recite that the copolymer is anionic at a pH "above about 4", which is indefinite. If the copolymer is anionic above pH 4, then the "about" term, which gives a wiggle room of less pH does not satisfy the requirement of the polymer being anionic. It is requested that applicants clarify and correct the claims as to what does the term "above about pH 4" includes.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 1615

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 8-10, 17-18, 25 and 26 are rejected under 35 U.S.C. 102(a) as being anticipated by Rerek et al (Rerek -submitted article on PTO-1449).

Rerek teaches an n acrylate copolymer that is effective in a sunscreen composition (entire document, particularly col. 1) and the reference nowhere states that the polymer is neutralized. Hence the reference of Rerek anticipates instant claims.

The reference publication of Rerek submitted by applicants does not contain actual date and only states 2002. An attempt to obtain the actual date of the publication was not fruitful. Accordingly, the rejection is made under 102(a) giving the benefit of doubt that the reference is available less than one year from the date filing of the instant application. However, upon obtaining the correct date, if the date of the reference is more than one year from the date filing of the instant application, then the reference will be applied as 102(b).

Claims 1, 8-10, 17-18, 25 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,853,700 to Gormley et al (Gormley).

Gormley teaches a cosmetic composition comprising an acrylate polymer that is a copolymer of methylmethacrylate, butyl acrylate and acrylic acid (col. 4, L 57-62 and claim 3). Gormley does not teach that the polymer is neutralized and hence reads on instant claims 9, 17 and 25. With respect to "sun care" of claims 8, 10 and 18, the claimed compositions do not in any way distinguish from the composition of Gormley

Art Unit: 1615

and hence the composition of latter meets instant claims. Besides the term is an intended use and hence carries no patentable weight. Hence, Gromley anticipates instant claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2-7, 11-16 and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rerek et al (submitted article on PTO-1449).

Rerek described above teaches a tetra polymer of acrylate monomers and is a polymerization product of methyl methacrylate, butyl acrylate, methacrylic acid and

Art Unit: 1615

cetyl-eicosinyl methacrylate. It is supplied as a milky white emulsion of 47 -49% solids and pH of 5.5 – 6 (col. 1). Instant specification does not define the term “substantially no hydrophobic monomers of greater than c8” and hence claims 2 allows for the cetyl-eicosinyl methacrylate monomer of Rerek. Rerek does not state if the polymer is anionic at pH 4 and above as claimed and also the specific amounts or percentages of the monomers (claims 6-7, 15-16 and 23-24). The polymer of Rerek is also effective in emulsions used for sunscreen compositions and therefore, it would have been obvious for one of an ordinary skill in the art at the time of the instant invention to use the appropriate proportions of the individual monomers of the acrylate polymer of Rerek by optimization because Rerek teaches the polymers for the same purpose as that of the instant i.e., sunscreen o and that it easily spreads on the skin by providing water resistance.

Claims 2-7, 11-16 and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,853,700 to Gormley alone or Gormley in view of US 5,204,090 to Han.

Gormley, described above, teaches acrylate polymers comprising the monomers of claim 5. Gormley does not teach the claimed anionic property; percentages of monomers or sun care compositions and instead teach for hair care (meets the claimed skin and eye lash care). However, instant “sun care” is an intended use and a hair care composition can still provide sun care when applied because of its property of water-proofing, unless shown other wise.

Art Unit: 1615

Han teaches waterproof sun care compositions comprising acrylate polymers (col. 3, L 20-50) that are not neutralized, for efficient waterproofing and high SPF. Thus, it would have been obvious for one of an ordinary skill in the art at the time of the instant invention to use the appropriate proportions of the individual monomers of the acrylate polymer of Gormley in the composition so as to achieve hair care as well as sun care because Han teaches that the acrylate polymers provide high SPF and also water proofing and thus offer maximal protection from damaging rays of sun.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lakshmi S. Channavajjala whose telephone number is 571-272-0591. The examiner can normally be reached on 7.00 AM -4.00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1615

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AU 1615
April 2, 2007



LAKSHMI S. CHANNAVAJALA
PRIMARY EXAMINER